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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|----------------------------------|-----------------------------|
| 10/528,641 | 10/27/2005 | Nozomu Sahashi | 38195.66 | 4651 |
| 54067 | 7590 | 10/12/2007 | | |
| OKADA C/O KEATING & BENNETT, LLP 8180 GREENSBORO DRIVE SUITE 850 MCLEAN, VA 22102 | | | EXAMINER GEBREMICHAEL, BRUK A | |
| | | | ART UNIT 4138 | PAPER NUMBER |
| | | | NOTIFICATION DATE 10/12/2007 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/528,641

Applicant(s)

SAHASHI, NOZOMU

Examiner

Bruk A. Gebremichael

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3709

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 03/22/2005.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-23, 28-29, 31-33, 38-39, 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saruhashi 2004/0205818 in view of Sukegawa 2003/0039380.

Regarding claims 22 and 32, Saruhashi discloses a remote education system/method that enables education over distances using multimedia bi-directional communication, including video and audio (Para.0009), a video acquisition means for acquiring the video of the student (Para.0004 and para.0005, lines 6-16).

However, Saruhashi fails to disclose the following claimed limitations: facial image matching means for matching the video acquired by the student video acquisition means with a pre-registered facial image of the student, a means for requesting the student to perform an action to change an appearance of the body of the student, and a detection means for detecting image changes of the student corresponding to the action requested based on the video of the student acquired by the student video acquisition means.

Sukegawa teaches, facial image matching means for matching the video acquired by the student video acquisition means with a pre-registered facial image of the student (Para.0156 and 0157), a means for requesting the student to perform an

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action to change an appearance of the body of the student (Para.0254 and 0255), and a detection means for detecting image changes of the student corresponding to the action requested based on the video of the student acquired by the student video acquisition means (Para.0252 and FIG 51, label 107).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saruhashi in view of Sukegawa by incorporating a face detecting means in order to detect the position of the face and face parts as taught by Sukegawa (para.0187).

Regarding claims 23 and 33, Saruhashi in view of Sukegawa teaches the claimed limitations as discussed above. Sukegawa further teaches the requesting means for requesting that the student moves the position of his or her face (Para.0254 and 0255), and the detection means detecting whether the position of the face of the student has moved (Para.0191).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saruhashi in view of Sukegawa by using a detector in order to detect the region of the face of the person to be recognized as taught by Sukegawa (Para.0191).

Regarding claims 28 and 38, Saruhashi in view of Sukegawa teaches the claimed limitations as discussed above. Sukegawa further teaches action detection means includes a means for determining that the facial image of the student does not move in a discontinuous manner (Para.0019, lines 12-16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saruhashi in view of Sukegawa by using a determination means that continuously input image in order to detect a person on the basis of a change with time in the region of the face as taught by Sukegawa (Para.0019, lines 12-16).

Regarding claims 29 and 39, Saruhashi in view of Sukegawa teaches the claimed limitations as discussed above. Sukegawa further teaches the detection means having a means for determining whether image changes occur within a specified time of the action request means (Para.0244, lines 5-11, and Para.0248).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saruhashi in view of Sukegawa by including a time information at which a face feature is acquired in order to improve the recognition accuracy by collecting a variety of face images as taught by Sukegawa (Para.0244, lines 5-11, and Para.0248).

Regarding claims 31 and 41, Saruhashi in view of Sukegawa teaches the claimed limitations as discussed above. Saruhashi further discloses the requesting means having a means for requesting the student to perform an action based on a command by the lecturer (Para.0079).

Regarding claim 42, Saruhashi in view of Sukegawa teaches the claimed limitations as discussed above. Sukegawa further teaches a computer-readable medium having computer-executable instructions for performing the attendance confirmation method (Para.0439).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saruhashi in view of Sukegawa by using a computer-readable medium in order to install the program into the user's personal computer as taught by Sukegawa (Para.0439).

Claims 24-25 and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saruhashi 2004/0205818 in view of Sukegawa 2003/0039380 and further in view of Hong 2005/0033573.

Regarding claims 24 and 34, Saruhashi in view of Sukegawa teaches the claimed limitations as discussed above. Saruhashi further discloses a means for asking the student a question and requesting an audio response and a means for acquiring audio of the student (Para.0069, lines 3-17 and ParaPara.0072, lines 1-6).

However Saruhashi fails to disclose a means for detecting movement of the mouth of the student accompanying the audio response by the student.

Sukegawa further teaches a means for detecting movement of the mouth of the student (Para.0187, Para 0192 and FIG 21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saruhashi in view of Sukegawa by including a face detection means in order to detect the position of the face and face parts as taught by Sukegawa (Para.0187, Para 0192 and FIG 21).

Saruhashi in view of Sukegawa further fails to teach the detection means including a means for recognizing the audio response from the acquired audio and a means for determining the validity of the audio response of the student.

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Hong teaches the following claimed limitations: a detection means including a means for recognizing the audio response from the acquired audio (Para.0007) and a means for determining the validity of the audio response of the student (Para.0009 and Para.0010).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saruhashi in view of Sukegawa and further in view of Hong by incorporating a speaker recognition means in order to verify the voice of the speaker as taught by Hong (Para.0009 and Para.0010).

Regarding claim 25 and 35, Saruhashi in view of Sukegawa and further in view of Hogan teaches the claimed limitations as discussed above. However, Saruhashi in view of Sukegawa fails to teach the detection means including a means for matching the audio response of the student with pre-registered audio of the student.

Hong teaches the detection means including a means for matching the audio response of the student with pre-registered audio of the student (Para.0010 and FIG 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saruhashi in view of Sukegawa and further in view of Hong by incorporating a recognition means in order to compare the new inputted voice with the registered background there by accepting or rejecting the speaker as taught by Hong (Para.0010 and FIG 7).

Claims 26 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saruhashi 2004/0205818 in view of Sukegawa 2003/0039380, in view of Hong

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2005/0033573 and further in view of Ohmae WO 00/59226 (disclosed by the applicant on page 2 of the specification).

Saruhashi in view of Sukegawa and further in view of Hong teaches the claimed limitations as discussed above. Saruhashi in view of Sukegawa and further in view of Hong teaches a function for asking the student a question and requesting an audio response (Saruhashi, Para.0069, lines 3-17 and Para.0072).

However, Saruhashi in view of Sukegawa and further in view of Hong fails to teach the function including a question relating to time, and the detection means including a function for determining the validity of the time given in response by the student.

Ohmae teaches a function for asking the student a question relating to time and a detection means including a function for determining the validity of the time given in response by the student (Page 2, lines 8-19 of the applicant's specification).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saruhashi in view of Sukegawa, in view of Hong and further in view of Ohmae by asking the student a question relating to time and requesting an audio response in order to determine the validity of the student, and also to determine whether or not the student actually attended the program at that particular time.

Claims 27 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saruhashi 2004/0205818 in view of Sukegawa 2003/0039380, in view of Hong 2005/0033573 and further in view of Yuen 2003/0009339.

Saruhashi in view of Sukegawa and further in view of Hong teaches the claimed limitations as discussed above. Saruhashi further discloses the action request means having a function for asking a question relating to personal information of the student (see FIG 19), and the detection means including a function for matching the personal information given in response by the student with pre-registered personal information relating to that student (Para.0015 and FIG 20).

However, Saruhashi in view of Sukegawa and further in view of Hong fails to teach the action requesting means requesting an audio response and matching the personal information given in response by the student with pre-registered personal information.

Yuen teaches an action requesting means requesting an audio response and matching the personal information given in response by the student with pre-registered personal information (Para.0227 and Para.0230, lines 1-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saruhashi in view of Sukegawa, in view of Hong and further in view of Yuen by incorporating a speech-to-text means in order to access the user's data as taught by Yuen (Para.0227 and Para.0230, lines 1-10).

Claims 30 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saruhashi 2004/0205818 in view of Sukegawa 2003/0039380 and further in view of Jung WO 02/103597 A1.

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Saruhashi in view of Sukegawa teaches the claimed limitations as discussed above. However, Saruhashi in view of Sukegawa fails to teach the action request means having a function for using unpredictable timing when requesting the student to perform an action.

Jung teaches an action request means having a function for using unpredictable timing when requesting the student to perform an action (Page 4, lines 5-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saruhashi in view of Sukegawa and further in view of Jung by incorporating a random request function in the action request means in order to determine the attendance of the student while the lecture goes on as taught by Jung (Page 4, lines 5-17).

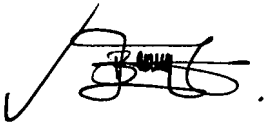
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruk A. Gebremichael whose telephone number is (571)270-3079. The examiner can normally be reached on Monday to Friday (7:30AM-5:00PM) ALT. Friday OFF.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenburg can be reached on (571)272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



B.G.
10/03/2007.



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SUPERVISORY PATENT EXAMINER

10/3/07